

Abstract

A communication system for distributed Raman amplification of optical signals is disclosed.

The communication system comprises a first fiber span, a second fiber span, and an amplifier system. The amplifier system generates a light beam and splits the light beam into a first portion and a second portion. The amplifier system transfers the first portion of the light beam onto the first fiber span so that the first portion of the light beam backward propagates over the first fiber span. The amplifier system transfers the second portion of the light beam onto the second fiber span so that the second portion of the light beam forward propagates over the second fiber span.